



July 14, 2016

Congressional Committees

**Defense Nuclear Enterprise: DOD Has Established Processes for Implementing and Tracking Recommendations to Improve Leadership, Morale, and Operations**

The Department of Defense (DOD) has identified nuclear deterrence as its highest priority mission. In 2014, in response to several incidents involving the nation's nuclear deterrent forces and their senior leadership, the Secretary of Defense directed two reviews of DOD's nuclear enterprise. These two reviews identified problems with leadership, organization, investment, morale, policy, and procedures, as well as other shortcomings that are adversely affecting the nuclear deterrence mission. The reviews also made recommendations to address these problems.

The National Defense Authorization Act for Fiscal Year 2016 includes a provision for us to review DOD's process for addressing the recommendations of the nuclear enterprise reviews.<sup>1</sup> In addition, Senate Report 114-49 includes a provision for us to review certain matters related to DOD's approach for addressing the recommendations.<sup>2</sup> This report describes the extent to which DOD has established processes to (1) implement the recommendations of the two nuclear enterprise reviews and (2) track the implementation of these recommendations and measure the effectiveness of the actions it has taken to address them. We briefed the congressional defense committees in February 2016. This report formally transmits updated briefing slides regarding the results of our work (see enclosure).

To identify DOD's processes for implementing the recommendations, tracking the progress of the implementation, and measuring the effectiveness of actions taken, we reviewed key documents, including the reports of the nuclear enterprise reviews, Strategic Command's action plan, DOD guidance (including the Secretary of Defense memo *Nuclear Enterprise Review Corrective Action Implementation*), and documents from the Office of Cost Assessment and Program Evaluation (CAPE) and the services that track the status of the recommendations. We also interviewed DOD officials regarding the processes the department and the services have developed. We compared the processes to relevant criteria from *Standards for Internal Control in the Federal Government*—including assessing and responding to risk, using and effectively communicating quality information, and performing monitoring activities.<sup>3</sup> The focus of this

<sup>1</sup>See Pub. L. No. 114-92, § 1658 (2015).

<sup>2</sup>See S. Rep. No. 114-49, at 269 (2015).

<sup>3</sup>GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014). These standards went into effect in October 2015, and we used them to assess DOD's activities since that time.

review was on actions taken in response to the recommendations of the two 2014 nuclear enterprise reviews; we did not review the methodology used to conduct those initial reviews.

We conducted this performance audit from July 2015 to July 2016 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

In summary, we found that DOD has established a process for implementing the two nuclear enterprise reviews' recommendations. In November 2014, the Secretary of Defense directed CAPE to track and assess the implementation of the recommendations from the two nuclear enterprise reviews. The Joint Staff, Navy, Air Force, offices within the Office of the Secretary of Defense, and Strategic Command are supporting CAPE's efforts. CAPE compiled the recommendations from the two reviews and a memorandum from the Commander of U.S. Strategic Command that identified several additional recommendations. CAPE identified 175 distinct recommendations from the three documents. CAPE then identified 247 sub-recommendations from recommendations directed to multiple services (or other DOD components). CAPE then worked with the services to identify offices of primary responsibility for implementing actions to address the recommendations, any offices of coordinating responsibility, and any resources necessary to implement each recommendation.

CAPE has developed a tracking tool to collect information on progress in meeting milestones and metrics. This tracking tool identifies offices of responsibility, implementation actions, milestones, and metrics to measure the effectiveness of the actions taken for each of the recommendations. The tracking tool currently contains hundreds of unique milestones and metrics, and additional milestones and metrics are still being identified. The Air Force and Navy also have their own methods of tracking their service-specific recommendations. The services provide CAPE with information to update CAPE's centralized tracking tool. As needed, CAPE requests clarification of information provided by the services and other DOD components. CAPE also provides the components with updated information on the status of the milestone and metrics from the centralized tracking tool and data independently gathered to support the centralized tracking tool. As of April 2016, CAPE reported that 20 of the sub-recommendations were closed, 28 had been identified as complete by the responsible DOD component and were in the process of being reviewed for possible closure, and 199 were in progress.

Information from CAPE's centralized tracking tool is used to inform a group of senior officials, known as the Nuclear Deterrence Enterprise Review Group (NDERG), which oversees the department's progress. The processes DOD has developed generally appear consistent with relevant criteria within the *Standards for Internal Control in the Federal Government*—including using and effectively communicating quality information and performing monitoring activities.<sup>4</sup> CAPE has also begun to include information related to assessing and responding to risk within its tracking process.

We are not making any recommendations in this report.

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<sup>4</sup>GAO-14-704G.

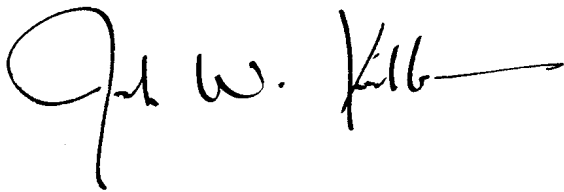
## Agency Comments

We provided a draft of this report to DOD for review and comment. DOD provided technical comments which we incorporated as appropriate.

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We are sending copies of this report to the appropriate congressional committees; the Secretary of Defense; the Secretaries of the Navy and Air Force; the Commander, Strategic Command; and the Director of CAPE. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have questions concerning this report, please contact me at (202) 512-9971 or [kirschbaumj@gao.gov](mailto:kirschbaumj@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report include Penney Harwell Caramia, Assistant Director; Carly Gerbig; Brent Helt; Joanne Landesman; Amie Lesser; and Mike Shaughnessy.

A handwritten signature in black ink, reading "J. W. Kirschbaum" with a long horizontal stroke at the end.

Joseph W. Kirschbaum  
Director, Defense Capabilities and Management

Enclosure

*List of Committees*

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Committee on Appropriations  
House of Representatives



# Department of Defense Nuclear Enterprise Reviews

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**Information Provided to Congressional Defense  
Committees**

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## Background

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- The Department of Defense (DOD) has identified nuclear deterrence as its highest priority mission. DOD's nuclear enterprise consists of Air Force Intercontinental Ballistic Missiles; nuclear-capable bombers and tactical fighters; Navy ballistic missile submarines; and the supporting infrastructure to build, maintain, and control these assets.
- In 2014, in response to several incidents involving the nation's nuclear deterrent forces and their senior leadership, the Secretary of Defense directed two reviews of DOD's nuclear enterprise:
  - An independent review led by retired General Welch and retired Admiral Harvey, and
  - An internal review led by Assistant Secretary of Defense Crendon and Rear Admiral Fanta.
- The two reviews identified problems with leadership, organization, investment, morale, policy, and procedure, as well as other shortcomings that are adversely affecting the mission. The reviews also made recommendations to address these problems.

## Objectives

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The National Defense Authorization Act for Fiscal Year 2016 includes a provision for GAO to review DOD's process for addressing the recommendations of the nuclear enterprise reviews.<sup>1</sup> In addition, Senate Report 114-49 includes a provision that GAO review certain matters related to DOD's approach for addressing the recommendations.<sup>2</sup>

This briefing presents our preliminary observations on the extent to which DOD has established processes to

1. Implement the recommendations of the two nuclear enterprise reviews and
2. Track the implementation of these recommendations and measure the effectiveness of the actions it has taken to address them.

<sup>1</sup>See Pub. L. No. 114-92, § 1658 (2015).

<sup>2</sup>See S. Rep. No. 114-49, at 269 (2015).



## Scope and Methodology

To evaluate the extent to which DOD has established a process to implement the recommendations of the two nuclear enterprise reviews, we

- Reviewed key documents, including the independent and internal nuclear enterprise reviews, Strategic Command's action plan, guidance such as the Secretary of Defense memo (*Nuclear Enterprise Review Corrective Action Implementation*), and documents from DOD's Office of Cost Assessment and Program Evaluation (CAPE) and the services that track the status of recommendations.
- Compared DOD's implementation process to relevant criteria from *Standards for Internal Control in the Federal Government*—including assessing and responding to risk, using and effectively communicating quality information, and performing monitoring activities.<sup>3</sup>

To evaluate the extent to which DOD has established a process to track implementation and measure the effectiveness of actions it has taken, we

- Reviewed CAPE's tracking tool for the Nuclear Enterprise Review Tracking (NERT) team, which is used to record progress on implementing and closing recommendations. It is also used to record the planned approach developed by the nuclear components and CAPE for assessing the effectiveness of DOD's actions.
- Reviewed the Air Force's and Navy's separate tracking processes and compared the type of information they track to that contained in the central tracking tool.

<sup>3</sup>GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Washington, D.C.: September 2014). These standards went into effect in October 2015, and we used them to assess DOD's activities since that time.

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## Scope and Methodology (continued)

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We interviewed officials from the following offices:

- Under Secretary of Defense for Policy
- Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs
- CAPE
- Joint Staff (J33, J5)
- Air Force Headquarters (A10)
- Air Force Global Strike Command
- Air Force Materiel Command
- 20<sup>th</sup> Air Force
- Air Education and Training Command
- Air Force Nuclear Weapons Center
- Air Force Inspector General
- Deputy Under Secretary of the Navy for Policy
- Chief of Naval Operations (N514, N80, N97)
- Strategic Systems Programs
- Naval Reactors
- United States Strategic Command

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## Summary

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DOD has established a process for implementing the internal and external nuclear enterprise reviews' recommendations. This process generally appears consistent with relevant criteria within the *Standards for Internal Control in the Federal Government*. CAPE worked with the services to identify offices of primary responsibility for implementing actions to address the recommendations, any offices with coordinating responsibility, and any resources necessary to implement each recommendation. A group of senior officials, known as the Nuclear Deterrence Enterprise Review Group (NDERG), which includes the Deputy Secretary of Defense and Vice Chairman of the Joint Chiefs of Staff, oversees the department's progress using information provided by CAPE and the services.

CAPE and the services have established processes to track the implementation of the nuclear enterprise reviews' recommendations. CAPE has developed a tracking tool to collect information on progress in meeting milestones and metrics. The Air Force and Navy also have their own methods of tracking their service-specific recommendations. The services provide CAPE with information to update CAPE's centralized tracking tool.



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## **DOD Has Established a Process for Implementing Recommendations from the Nuclear Enterprise Reviews**

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- In November 2014, the Secretary of Defense directed DOD to address the recommendations from the two nuclear enterprise reviews, and the Secretary directed CAPE to track and assess the implementation of the recommendations. The Joint Staff, Navy, Air Force, offices within the Office of the Secretary of Defense, and Strategic Command support CAPE's efforts.
- The Secretary also established the NDERG, a group of senior officials chaired by the Deputy Secretary of Defense and including the Vice Chairman of the Joint Chiefs of Staff, to oversee and make decisions regarding implementation of the nuclear enterprise reviews' recommendations.
- CAPE compiled recommendations from the two reviews and a memorandum from the Commander of Strategic Command, which identified several additional recommendations. CAPE identified 175 distinct recommendations from the three documents. CAPE then identified 247 sub-recommendations from recommendations directed to multiple services (or other DOD components). Table 1 provides the number of recommendations by category.
- CAPE then worked with the services to identify offices of primary responsibility for implementing actions to address the recommendations, any offices of coordinating responsibility, and any resources necessary to implement each recommendation.
- These activities are generally consistent with the principles for performing monitoring activities found in *Standards for Internal Control in the Federal Government*—including the establishment of a baseline, internal control system monitoring, and evaluation of results.



## DOD Has Established a Process for Implementing Recommendations from the Nuclear Enterprise Reviews (continued)

**Table 1: Number of Recommendations and Sub-recommendations by Category**

Recommendation Category	Recommendations	Sub-recommendations
Operations and Maintenance	30	36
Investment	13	17
Readiness	6	8
Personnel	33	40
Career Development	13	15
Policy/Accountability	34	40
Visits/Inspections	13	15
Public Affairs	10	29
Issuance <sup>a</sup>	2	2
Personnel Reliability Program (PRP)	15	31
Nuclear Command, Control, and Communications (NC3)	6	14
<b>Total</b>	<b>175</b>	<b>247</b>

Source: GAO analysis of Department of Defense information. | GAO-16-597R

<sup>a</sup>Both the internal and external nuclear enterprise reviews recommended a specific update to a DOD manual to ensure standards and threats were current.

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## DOD Has Established a Process for Implementing Recommendations from the Nuclear Enterprise Reviews (continued)

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- To organize and manage the large number of recommendations and sub-recommendations, CAPE built a tracking tool that it could populate with information about each recommendation. The services and other DOD entities can view the tracking tool on DOD's classified network, but only CAPE can edit the content of the tracking tool.
- CAPE worked with the services to develop an implementation approach for each recommendation and then captured the approach in the tracking tool. The tracking tool contains fields for the following information for each recommendation:
  - An underlying problem statement, or root cause, for the recommendation
  - The offices of primary responsibility and coordinating responsibility
  - Specific implementation actions that DOD has taken or plans to take
  - Time frames, with milestones, for implementing the recommendations
  - Metrics to measure the effectiveness of the actions taken
  - Key risks and issues
  - Required decisions and guidance
- These actions are generally consistent with the principles for using and effectively communicating quality information found in *Standards for Internal Control in the Federal Government*—including identifying information requirements, obtaining relevant data from reliable sources, processing the data into quality information, and communicating necessary quality information both internally and externally.
- Figure 1 provides a sample layout of the contents of the tracking tool.



## DOD Has Established a Process for Implementing Recommendations from the Nuclear Enterprise Reviews (continued)

Figure 1: Sample Layout of Content in the Nuclear Enterprise Review Tracking Tool

<b><u>Problem</u></b> (root cause) [Hatched area]		<b><u>Overall Status</u></b>  <b>Recent Progress</b> [Hatched area]  <b>CAPE's Assessment of Progress</b> [Hatched area]  <b>Required Decisions and Guidance</b> [Hatched area]  <b>Key Risks and Issues</b> [Hatched area]
<b><u>Recommendation</u></b> (from nuclear enterprise review reports) [Hatched area]  <b><u>Approach to Problem</u></b> [Hatched area]	<b><u>Metrics</u></b> <b>Process Metrics</b> [Hatched area] <b>Outcome Metrics</b> [Hatched area]  <b><u>Key Organization(s)</u></b> <b>Office of Primary Responsibility</b> [Hatched area] <b>Office of Coordinating Responsibility</b> [Hatched area]	
<b><u>Key Milestones</u></b> [Hatched area]		

Source: GAO analysis of Department of Defense information. | GAO-16-597R



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## **DOD Has Established a Process for Implementing Recommendations from the Nuclear Enterprise Reviews (continued)**

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Some recommendations have been implemented and closed. For example,

- Air Force Global Strike Command, like other Air Force major commands, is now led by a four-star general, and the Air Force/A10, like other deputies within the Air Staff, is now led by a three-star general.
- The Joint Staff revised an instruction to address some issues regarding inspections of personnel and material and some issues regarding procedures that contribute to the safety, security, and control of nuclear weapons.
- The Navy provided data to CAPE regarding the quality of personnel serving as instructors. Specifically, according to a Navy official, the data show that instructors performed better in reaching the next paygrade or career milestone than non-instructors.

Some recommendations have been closed without further action. For example,

- DOD did not implement the recommendation to create a single, senior-level position to oversee the nuclear enterprise because, according to CAPE officials, the Secretary considered the establishment of the NDERG to be sufficient.





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## **CAPE and the Services Have Established Processes to Track the Implementation of Recommendations, and They Continue to Identify Measures of Effectiveness**

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### **CAPE**

- collects data and conducts analysis to assess and track the progress of each recommendation, using the tracking tool, until it is closed by the NDERG.
- holds periodic NERT working group meetings. This working group is composed of civilian and uniformed officials from across DOD, including officials from CAPE, the services, Strategic Command, and Joint Staff. According to CAPE officials, these meetings initially involved collaborating on a planned approach for implementing the recommendations, and now the meetings are used primarily to discuss progress the services are making on implementing the recommendations.
- provides regular updates on the implementation of the recommendations to the Secretary and Deputy Secretary of Defense. The NDERG meets on an approximately quarterly basis.



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## **CAPE and the Services Have Established Processes to Track the Implementation of Recommendations, and They Continue to Identify Measures of Effectiveness (continued)**

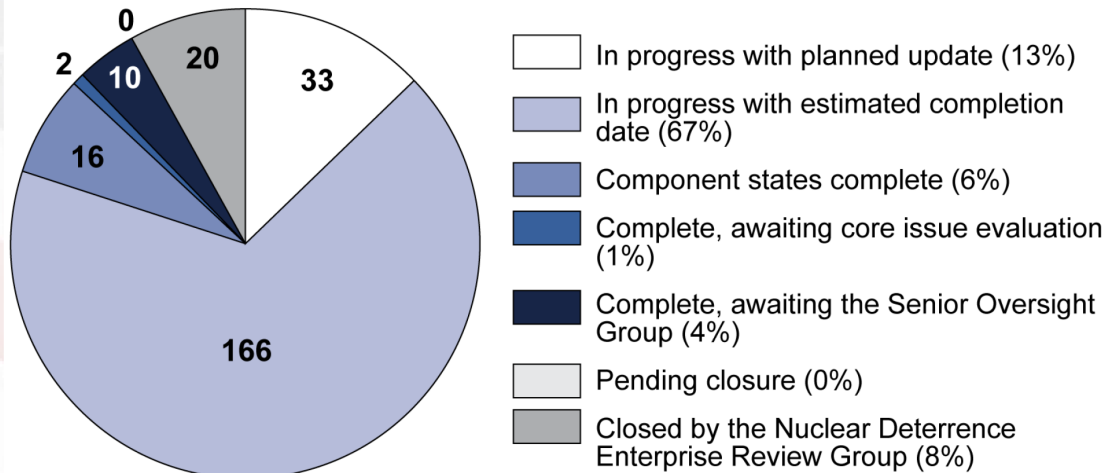
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- In order to close a recommendation, the NERT working group first determines that the data provided by the services or other DOD offices verifies that all actions are complete, that the underlying problem that led to the recommendation has been resolved, and that continuing to track the recommendation would not affect the health of the nuclear enterprise.
- The NERT working group may also advise that a recommendation should be closed if it assesses that the intent of the recommendation will be better met by implementing other recommendations that are still being tracked.
- Once the NERT working group agrees that a recommendation should be closed, it presents the recommendation to a Senior Oversight Group, chaired by a senior CAPE official and consisting of senior civilian and uniformed officials from across DOD, for concurrence.
- After the Senior Oversight Group agrees that the recommendation should be closed, it is brought to the NDERG. According to CAPE officials, the NDERG has the ultimate authority to decide whether to close a recommendation.

## CAPE and the Services Have Established Processes to Track the Implementation of Recommendations, and They Continue to Identify Measures of Effectiveness (continued)

CAPE has developed a taxonomy for tracking the status of each recommendation. Figure 2 provides the status of sub-recommendations within CAPE's taxonomy.

**Figure 2: Status of 247 Sub-recommendations as of 4/19/2016**



Note: Percentages do not add to 100% due to rounding.

Source: GAO analysis of Department of Defense information. | GAO-16-597R



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**CAPE and the Services Have Established Processes to Track the Implementation of Recommendations, and They Continue to Identify Measures of Effectiveness (continued)**

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- The Air Force and the Navy have their own internal processes for tracking the recommendations that apply to them.
- Staff within Air Force A10 track the Air Force's approximately 130 recommendations, using a database containing information similar to what is in CAPE's tracking tool, but with additional detail to assist A10 personnel in following up within the Air Force.
- Staff within the Office of the Chief of Naval Operations track the Navy's approximately 65 recommendations, keeping an electronic file on each of these recommendations that contains a summary of the recommendation and actions taken and copies of supporting documents.
- According to CAPE and service officials, the service officials use their respective tracking processes to keep their own management informed, and they coordinate with CAPE through the NERT working group to align their information with that in the CAPE tracking tool.



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## **CAPE and the Services Have Established Processes to Track the Implementation of Recommendations, and They Continue to Identify Measures of Effectiveness (continued)**

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- According to CAPE officials, CAPE's approach for measuring effectiveness is to gather as much supporting data as it can from the services and measure the effectiveness of each recommendation separately. However, these officials noted that until a recommendation is implemented, CAPE cannot fully assess the effectiveness of actions taken. Some recommendations, including changing service culture or morale, will take time to evaluate.
- CAPE is using the tracking tool to track progress in meeting milestones and record the metrics it has identified to assess the effectiveness of the actions taken. Additional milestones, particularly for actions more than 18 months out, and additional metrics to aid in measuring the effectiveness of actions taken are still being identified.
- According to CAPE officials, the tracking tool currently contains 430 unique metrics and 434 unique milestones to aid in the assessment of the process or the outcome of actions taken. For each of these metrics and milestones, the tracking tool includes expected completion dates and indicates which are met and which are behind schedule.
- CAPE officials told us they believe it will take about 3 years to see measurable improvements in the health of the nuclear enterprise, and 15 years to implement the great majority of the recommendations and measure whether they have had their intended effect. CAPE and service officials have noted that it will take years for some cultural changes to manifest.

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